TELL AMR-08

Monitoring Receiver

Installer Manual

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CONTENT

1. INTRODUCTION

Thank you for choosing our product. This modern and reliable monitoring receiver not only guarantees the highest level of **security**, but also it is a useful colleague in the life of every monitoring company, because of its **user-friendly** handling and **intelligent functions**.

To use the highest range of provided functions **please read** carefully the *Installer Manual*.

For the confident programming and secure usage please keep all warnings in *Installer Manual*, with highly focusing to security directions.

2. SYSTEM STRUCTURE

TELL AMR-08 monitoring receiver provides complex and reliable solution to build up a modern monitoring station. The device can receive signals from alarm control panels through IP network and telephone line. Due to the universal operation, the device can receive all standard (and most of the non-standard) signals from alarm control panels and communicators. With combination of an appropriate PC-based monitoring software it guarantees not only reliable signal transmission, but also easy to use operator interface. The system consists of the following devices:

2.1 CPM card

Central processing card (CPM) which controls the operation of the receiver. CPM contains two serial ports (respectively 2 high speed USB ports), one Ethernet port and one parallel printer port. CPM card can store up to 2000 events in its non-volatile memory. If the connection fails with monitoring computer, the receiver stores events in its own memory, and all events will be sent automatically when the connection is restored. CPM controls the graphical LCD display as well, where received events can be seen and basic settings can be done.

2.2 LC telephone line card (optional)

Receiver has 8 slots to connect LC telephone line cards. LC line cards can monitor one telephone line. Each telephone line card have memory to store up to 500 events or caller ID. Caller ID function is built in, the caller telephone number is stored and can be transmitted to monitoring computer. Line cards support two-way audio communication also. Line cards are continuously monitored by CPM. All line card troubles are displayed immediately at LCD display, and transmitted to monitoring computer. The line card monitors the connection with CPM as well, if it detects trouble automatically switches to standalone operation mode. In this case it continues event receiving, but stores them in its own memory. All received events will be sent automatically to CPM when the connection is restored.

2.3 PWR power supply card

PWR power supply card ensures voltage for all cards in the system. The input of PWR requires 16.5 VAC / 18 VDC, which is generated by an external transformer unit / power supply unit. PWR has got battery charging circuit, batteries can be connected to external connectors. In case of main power trouble battery powered operation is switched automatically. The capacity of batteries should be between 7 Ah and 15 Ah. The PWR continuously check the state of main power and batteries, and it reports the status to CPM unit.

2.4 IP card (optional)

Receiver has 8 slots to connect IP Ethernet based receiver cards. IP cards can work in standalone mode, they control individually the incoming events through Ethernet line. Then they forward the events to central processing unit of main receiver through internal receiver bus. By means of IP cards gives extended range in IP receiving functions (comparing to CPM card in base receiver unit). Additionally it provides possibility to connect the system to a secondary Internet provider.

2.5 Monitoring software compatibility

The device can work with the most generally used monitoring software packages, but please ask the distributor for the primary recommended monitoring software.

3. FIRST STEPS

Please unpack the device carefully and please check is there any damage on that caused by transport. If there is any obvious damage do not switch on the device, please call the distributor. The basic package contains the following units:

- TELL AMR-08 monitoring receiver (1 CPM card, 1 PWR card)

- RS232 cable for PC connection

- USB cable for PC connection

- 16.5 VAC transformer and power cable / 18 VDC power supply unit

- Battery connector cable (without battery)

- User Manual

- Programming Manual

- Installer Manual

Before mounting the device to its operation environment, receiver test is recommended. For this connect the external power supply to the PWR card 16.5 V AC terminals and the battery to the „BATTERY 1 +" and „BATTERY 1 –" connectors. The receiver executes a self-test after connecting the power supply and it detects system components (optional LC telephone line cards, IP cards). After this operation the event list can be seen on LCD display.

Note: Battery usage is only recommended at BATTERY 1 connector. In special cases (usage without main power) it is possible to use two batteries (another battery on BATTERY 2 connector) to provide continuous operation, but is not recommended for long term usage.

Note: Battery charging voltage can be only measured if the battery is connected.

4. INSTALLATION

Mounting the receiver unit

TELL AMR-08 is manufactured in a 3HE height 19" table housing. In addition it can be mounted to a standard 19" rack case by means of the holes in front board.

Note: The table stands might be folded up in case of installation to a rack case.

Note: LCD display is planned to be well seen in table usage. If the receiver is installed over the eye-level, it is recommended to turn a bit downward for better readability.

Printer connection

Any type of parallel printer can be used with Centronics connector. Connect the cable of the printer to the LPT port of the CPM unit.

Note: In view of the default usage of the device, it is recommended to use matrix printer as against laser / ink-jet printers for event print.
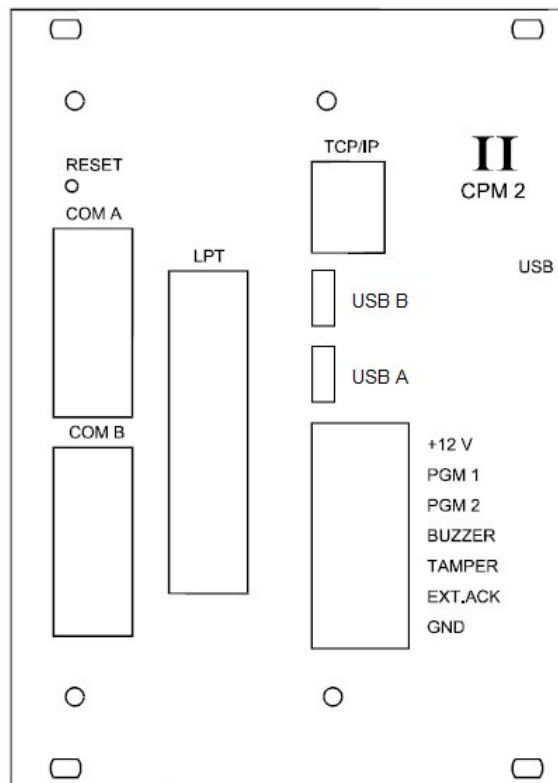
PC connection

For the connection to monitoring software connect the receiver COM A (USB A) port to the serial port (USB port) of the monitoring PC. Use the cable provided in receiver package. If the cable length is not enough, you can use USB expander cable or RS232 expander cable (COM A – 2, 3, 5 pin; PC [9 pin] – 3, 2, 5 pin). With this you may have up to 10-12 m distance between receiver unit and monitoring PC.

Note: COM A and USB A ports are equivalent, as the COM B and USB B ports. Do not connect devices at the same time to COM A and USB A ports. If it is possible, always recommended to use COM A as against USB A.

Note: If the A serial port of the receiver has any trouble, B port can work as a replacement. For this some small configuration steps are required which can be found in *Programming Manual*.

CPM central processing card backside connectors

RESET – Hardware reset button.

COM A – Default communication port for PC connection.

COM B – Reserve communication port for PC connection (or for external receiver).

LPT – Parallel printer port.

TCP/IP – Ethernet connector for IP monitoring and for remote programming.

USB A – Default communication port for PC connection (if there is no serial port)

USB B – Reserve communication port for PC connection.

+12 V – Power connector for control functions.

PGM 1 / PGM 2 – For future usage.

BUZZER – To connect external buzzer (intermittent shortcut with GND during internal buzzer activation, if the internal buzzer is enabled).

TAMPER – Works as NO tamper switch if the tamper function is enabled.

EXT. ACK – Works as external acknowledge button (shortcut with GND means manual acknowledge, same way as ENTER button) if external acknowledge function is enabled.
*Note*: Install a 10 K pull-up resistor between EXT. ACK and +12 V terminals.

GND – Common GND connector for control functions.

PWR power supply card backside connectors

For device installation connect the external voltage to the PWR card 16.5 V AC terminals and the battery to the „BATTERY 1 +" and „BATTERY 1 –" connectors. The receiver executes a self-test after connecting the power supply and it detects system components (optional LC telephone line cards, IP cards). After this operation the event list can be seen on LCD display.

Note: Battery usage is only recommended at BATTERY 1 connector. In special cases (usage without main power) it is possible to use two batteries (another battery on BATTERY 2) for continuous operation, but is not recommended for long term usage.

Note: Use only the power supply (18 VDC) / transformer in receiver package (or a replacement transformer with at least 50VA @ 16.5 VAC capacity).
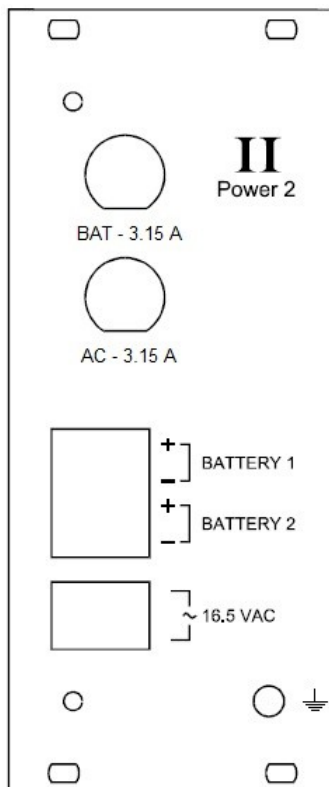
BAT – 3.15 A – Fuse to protect battery circuit.

AC – 3.15 A – Fuse to protect AC power supply circuit.

BATTERY 1 – Primary battery connector (7-15 Ah).

BATTERY 2 – Secondary battery connector (7-15 Ah).

16.5 V AC – Main power supply connector (18 VDC power supply / transformer in receiver package or at least 50 VA @ 16.5 VAC capacity replacement transformer).

- GROUND – Standard M5 nut for grounding power supply unit. It is not allowed to use the receiver without proper grounding.

Note: To provide appropriate protection against electrostatic and electromagnetic interferences the device housing should be grounded properly. Grounding of housing and grounding of telephone line cards can be connected only at the common ground point (at least 2 m distance between each card grounding point – M5 nut / terminals). Grounding is essential for flash of lighting and over-potential protection, absence of proper grounding may cause communication problems as well.

Note: Never connect grounding point to receiver GND terminal, it may cause damage.

LC telephone line card backside connectors (optional)

LC line card is suitable to receive analog (PSTN) telephone line. Connect the telephone line into the "LINE/SET" RJ11 connector at the backside of the line card. In case of ISDN line use one of the analog line outputs of ISDN NT box. For two-way audio connection the telephone set should be connected to "LINE/SET" connector also. The incoming telephone line should be connected to the two internal connector interfaces (3-4), telephone set should be connected to the two external connector interfaces (2-5). Pay attention that connected telephone set should be in line, as if it is in hanged up state the two-way audio connection doesn't work. Check device impedance as well – it should be 600 ohm for normal phone sets.
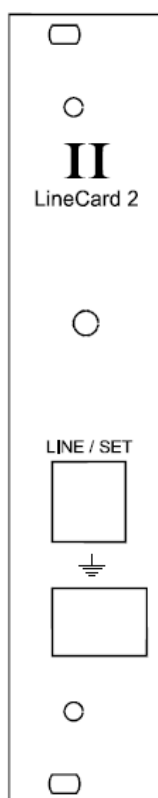
LINE / SET – Analog telephone line connector.

– GROUND – Terminals to connect telephone line card
(into either of connectors).

Note: Grounding of housing and grounding of telephone line cards can be connected only at the common ground point (at least 2 m distance between each card grounding point – M5 nut / terminals). Grounding is essential for flash of lighting and over-potential protection, absence of proper grounding may cause communication problems as well.

IP Ethernet receiver card backside connectors (optional)

IP receiver cards are able to receive events through Ethernet network. IP card has extended IP receiving functions compared to CPM unit in main receiver. Connect the Ethernet network cable into the Ethernet slot on the receiver card backside. If it is required, the IP card can be connected directly to monitoring PC through USB connector on receiver backside.
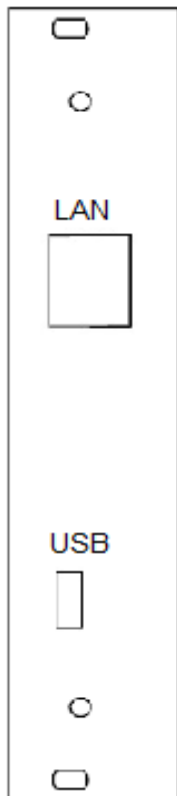
LAN – 100 Mbit Ethernet network connector

USB – To connect monitoring PC (if it is required)

Card installation and replacement

Receiver switch off is not required during card replacement. Unscrew the two / four fixing screws, then pull the card carefully with a firm action. New card installation is the same, only in opposite sequence. Before installing new LC / IP card, please remove the metal cover from the card position. CPM / PWR cards have fix position, LC / IP card can be mounted into 1 – 8 slots (starting from slot 1 if it is possible).

Note: Do not forget to apply / set again previous settings (before change) in new cards.

Note: If there is any malfunction after card replacement, please restart the device with F3 (UTIL) / F3 (RESET / F3 (RESET) buttons.
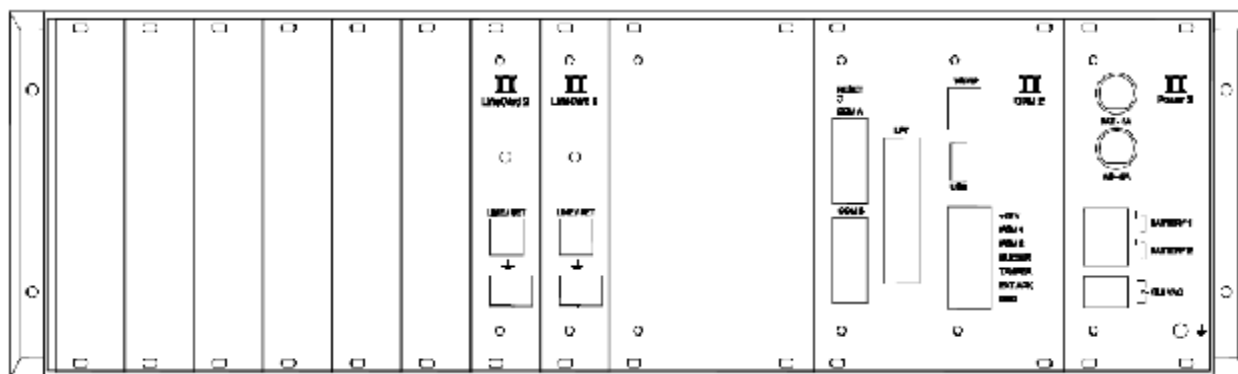
5. TECHNICAL DATA

Product	TELL AMR-08
Power supply	18 Vdc @ 2 A (main) or 16.5 Vac @ 30 VA (main) / 12 Vdc @ 7 Ah (battery)
Maximum current consumption	about 500 mA (depends on configuration)
Event buffer	up to 2000 events
Monitored IP devices	up to 255 accounts
Operating temperature	10 °C / +30 °C 40% relative humidity
Sizes (W / L / H)	485 x 220 x 135 mm
Weight	5200 g